

AMENDMENT TO THE CLAIMS

1. (Currently amended) A cutting tool for drilling and turning, comprising:
a base body comprising a clamping part and a working part axially spaced from each
other; and

C2
an indexable tip, releasably connected to said working part, comprising a hexagonal
shape having at least one circumferential cutting edge, a support surface, and obtuse and
acute corner angles; and

a thickness of said indexable tip from said support surface to said acute corner angles
is greater than a thickness of said indexable tip from said support surface to said obtuse
corner angles.

2. (Original) The cutting tool in accordance with claim 1, wherein said
working part is essentially cylindrical.

3. (Original) The cutting tool in accordance with claim 1, wherein said
indexable tip is positioned at an end of said working part remote from said clamping part.

4. (Original) The cutting tool in accordance with claim 1, wherein said
working part comprises a flute running in a direction of a tool axis and a form-locking seat
for said indexable tip.

5. (Original) The cutting tool in accordance with claim 4, wherein, when said
indexable tip is seated on said working part, at least one cutting edge slightly projects from
said working part.

Cont
6. (Original) The cutting tool in accordance with claim 4, wherein said flute running in a direction of said tool axis is formed with a twist.

A2
7. (Original) The cutting tool in accordance with claim 1, wherein said hexagonal shape of said indexable tip comprises alternately obtuse and acute corner angles and six straight cutting edges.

8. (Currently amended) The cutting tool in accordance with claim 7, wherein a greatest width of said indexable tip is at least ~~about~~ 0.92 times a diameter of said working part.

9. (Original) The cutting tool in accordance with claim 1, wherein said at least one cutting edge comprises three cutting edges, and wherein a trajectory of at least a part of one of said three cutting edges projects slightly beyond an outer contour of said working part.

10. (Original) The cutting tool in accordance with claim 1, wherein said base body comprises at least one bore for inserting at least one of coolant and lubricant, and an exit of said at least one bore is directed at said indexable tip.

11. (Original) The cutting tool in accordance with claim 10, wherein said exit of said at least one bore is obliquely arranged relative to a tool axis.

12. (Currently amended) The cutting tool in accordance with claim 11, wherein said exit of said at least one bore is arranged at an angle between ~~about~~ 15° and 75° to said tool axis.

13. (Currently amended) The cutting tool in accordance with claim 12,

Cont
wherein said exit of said at least one bore is arranged at an angle between ~~about~~ 25° and 45° to said tool axis.

CJ
14. (Original) The cutting tool in accordance with claim 1, wherein said indexable tip comprises a center hole and the center hole of said indexable tip is eccentrically positioned outside a center of said working part.

15. (Currently amended) The cutting tool in accordance with claim 1, wherein said at least one cutting edge comprises a plurality of cutting edges arranged to form acute angled corners having an angle of ~~about~~ 88° ± 1.7°.

16. (Currently amended) The cutting tool in accordance with claim 15, wherein said at least one cutting edge comprises a plurality of cutting edges arranged to form acute angled corners having an angle of ~~about~~ 88° ± 0.3°.

17. (Currently amended) The cutting tool in accordance with claim 1, wherein a front cutting edge of said indexable tip forms an angle of ~~about~~ 89.8° ± 0.5° with an axis of tool rotation.

18. (Currently amended) An indexable tip for a cutting tool for the machining of materials, comprising:

a flat supporting area;
a face opposite said supporting area;
said flat supporting area and said face being arranged to form open spaces coupling said supporting area and said face; and

Cmt
six circumferential cutting edges arranged to form acute and obtuse angled corners,

wherein a vertical distance of ~~said cutting edges~~ from said supporting area to said

A2 cutting edges located in a region of said obtuse-angled corners is a minimum less than a
vertical distance from said supporting area to said cutting edges located in a region of said
acute-angled corners.

19. (Original) The indexable tip in accordance with claim 18, wherein said cutting tool is structured for the machining of metals and alloys.

20. (Original) The indexable tip in accordance with claim 18, further comprising an attachment device formed as a center hole.

21. (Original) The indexable tip in accordance with claim 18, wherein said cutting edges are arranged to form alternately acute-angled corners and obtuse-angled corners.

22. (Currently amended) The indexable tip in accordance with claim 18, wherein said cutting edges form acute angled corners having an angle of ~~about~~ $88^\circ \pm 1.7^\circ$.

23. (Currently amended) The indexable tip in accordance with claim 22, wherein said acute angled corners are ~~about~~ $88^\circ \pm 0.5^\circ$.

24. (Currently amended) The indexable tip in accordance with claim 22, wherein said acute angled corners are ~~about~~ $88^\circ \pm 0.3^\circ$.

25. (Currently amended) The indexable tip in accordance with claim 18, wherein said cutting edges are oriented at an angle of between ~~about~~ 2° and 10° to said

supporting area.

Cont
C2

26. (Currently amended) The indexable tip in accordance with claim 25, wherein said cutting edges are oriented at an angle between ~~about~~ 4° and 8° to said supporting area.

27. (Currently amended) The indexable tip in accordance with claim 25, wherein said cutting edges are oriented at an angle of ~~about~~ $7^\circ \pm 0.5^\circ$ to said supporting area.

28. (Currently amended) The indexable tip in accordance with claim 18, wherein a part of said face immediately bordering said cutting edge forms an angle of between ~~about~~ 2° and 18° with said supporting area. 

29. (Currently amended) The indexable tip in accordance with claim 28, wherein a part of said face immediately bordering said cutting edge forms an angle of between ~~about~~ 4° and 12° with said supporting area.

30. (Currently amended) The indexable tip in accordance with claim 28, wherein a part of said face immediately bordering said cutting edge forms an angle of between ~~about~~ 5° and 10° with said supporting area.

31. (Currently amended) The indexable tip in accordance with claim 18, wherein the open spaces form an angle of between ~~about~~ 5° and 12° with a straight line normal to said supporting area at said cutting edges. 

32. (Currently amended) The indexable tip in accordance with claim 31, wherein the open spaces form an angle of between ~~about~~ 6° and 11° with a straight line

normal to said supporting area at said cutting edges.

*Conf
A2*

33. (Currently amended) The indexable tip in accordance with claim 31, wherein the open spaces form an angle of ~~about~~ $7^\circ \pm 0.5^\circ$ with a straight line normal to said supporting area at said cutting edges.

34. (Currently amended) The indexable tip in accordance with claim 18, wherein the open spaces are divided into at least two sections comprising a first section, bordering the cutting edges, forming an angle of between ~~about~~ 5° and 12° , and a second section, bordering said supporting area, forming an angle of between ~~about~~ 12° to 25° with a straight line normal to said supporting area.

35. (Currently amended) The indexable tip in accordance with claim 34, wherein said first section forms an angle of between ~~about~~ 6° and 11° .

36. (Currently amended) The indexable tip in accordance with claim 34, wherein said first section forms an angle of ~~about~~ $7^\circ \pm 0.5^\circ$.

37. (Currently amended) The indexable tip in accordance with claim 34, wherein said second section forms an angle of between ~~about~~ 14° and 22° .

38. (Currently amended) The indexable tip in accordance with claim 34, wherein said second section forms an angle of ~~about~~ $15^\circ \pm 0.5^\circ$,

39. (Original) The indexable tip in accordance with claim 18, wherein said corners are rounded off.

40. (New) A cutting tool for drilling and turning, comprising:

Cont
a working part elongated in an axial direction having a seat parallel to said axial direction;

② an indexable tip, releasably connected to said seat, comprising a hexagonal shape, at least one circumferential cutting edge located between adjacent angles of said hexagonal shape, and a support surface;

a greatest width across said hexagonal shape is at least 0.92 times a thickness of said working part; and

said at least one circumferential cutting edge being arranged obliquely to said support surface.
